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Claims.

1. (Currently Amended) Vessel for ~~receiving or melting~~ molten silicon comprising a silicon composite thermet sprayed coating comprising metal silicon, silicon nitride and silicon oxide on at least a part of the interior wall of the silicon holding vessel, ~~characterized in that~~ the silicon composite thermet sprayed coating has comprising a mixing ratio of metal silicon (X): silicon nitride (Y): silicon oxide (Z) of X:Y:Z: = 20-50: 77-30: 3-20.
2. (Currently Amended) A vessel according to claim 1, ~~characterized in that~~ wherein the silicon composite thermet sprayed coating is formed by spraying a silicon composite thermet material made by adding metal silicon as a bonding material to a mixture of Si_3N_4 and SiO_2 silicon nitride and silicon oxide.
3. (Currently Amended) A vessel according to claim 1 ~~or 2~~, ~~characterized in that~~ wherein the silicon holding vessel ~~is made from~~ comprises a material ~~comprising~~ selected from a group consisting of silicon oxide, boron nitride ~~and/or~~ and graphite.
4. (Currently Amended) A vessel according to claim 3, wherein the silicon oxide (SiO_2) is selected from a group consisting of densified fused silica ~~or~~ and sintered fused silica.
5. (Currently Amended) A vessel according to claim 1, ~~characterized in that~~ wherein the coating has a thickness of 20-500 μm , ~~preferably of 50-300 μm~~ .

6. (Currently Amended) A method of producing a vessel for ~~receiving or melting~~ molten silicon, ~~which comprises the method comprising~~ spraying a silicon composite thermet material ~~consisting of~~ comprising metal silicon, silicon nitride and silicon oxide on ~~the~~ an interior wall of ~~said the~~ vessel, thereby forming a silicon composite thermet sprayed coating wherein the silicon thermet sprayed coating has a mixing ratio of metal silicon (X): silicon nitride (Y): silicon oxide (Z) of X:Y:Z: = 20-50: 77-30: 3-20.
7. (Currently Amended) A method according to claim 6, wherein ~~said the~~ vessel is ~~made from~~ comprises a material ~~comprising~~ selected from a group consisting of silicon oxide, boron nitride ~~and/or~~ and graphite, ~~preferably densified or sintered fused silica.~~
8. (New) A method according to claim 7, wherein the silicon oxide comprises densified fused silica.
9. (New) A method according to claim 7, wherein the silicon oxide comprises sintered fused silica.
10. (New) A vessel according to claim 1, wherein the coating has a thickness 50-300 μm .